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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/746,563	12/22/2000	William E. Glenn	FAU-7038/42	1691

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EXAMINER	
HENN, TIMOTHY J	

ART UNIT	PAPER NUMBER
2612	

DATE MAILED: 06/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/746,563	GLENN, WILLIAM E.	
	Examiner	Art Unit	
	Timothy J. Henn	2612	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *24 November 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *11-21* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *11-21* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *24 November 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 11-21 have been considered but are moot in view of the new ground(s) of rejection.

Drawings

2. The drawings were received on 24 November 2004. These drawings are acceptable.

Response to Amendment

3. The replacement abstract received 24 November 2004 is acceptable and overcomes the previous objections, these objections are therefore with drawn.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 11, 13, 15 and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by Kawahara et al. (US 4,758,883).

[claim 11]

Regarding claim 11, Kawahara discloses a method for producing electronic video signals representative of color images of a scene, comprising the steps of (providing a sensor having a color filter thereover (Figure 5A, Item 18 CCD and Item 19 COLOR FILTER); providing a lens system that focuses light from the image onto the color filter and sensor (Figure 5A, Item 13); and producing electronic video signals from the output of the sensor (Figure 1, VIDEO OUT; c. 2, ll. 8-40; Figure 9; Figure 10); wherein the step of providing a sensor having a color filter thereover includes providing a sensor comprising a sensor array having alternate lines offset by half a pixel spacing and diagonally coupled on successive lines, and providing a color filter having repeating R, G and B patterns offset on successive lines so that R pixels are arranged diagonally, G pixels are arranged diagonally and B pixels are arranged diagonally (Figure 4; c. 3, ll. 7-15). As claimed figure 4 can be read as being "diagonally coupled on successive lines" since the pixels are offset in successive lines and in contact with each other. For example, the first "R" pixel of the first line is offset from the first "B" pixel of the second line, therefore the two pixels can be said to be "diagonally coupled" as claimed.

[claim 13]

Regarding claim 13, Kawahara discloses a lens system which is a "motion picture film type of lens system" (Figure 5A, Item 13). The examiner notes that the lens of Kawahara is a "phototaking lens having an iris" (c. 3, ll. 23-24) which could be used in a motion picture film type of camera and is therefore a "motion picture film camera type of lens system" as claimed. The examiner notes that as written claim 13 does not require any specific lens or lens system, instead the claim merely requires a "type" of

lens which could be used in a motion picture camera. For example, focusing lenses and zoom lenses can be considered to be "types" of lenses which are used in motion picture cameras and which meet the limitations of the claim as written.

[claim 15]

Regarding claim 15 Kawahara discloses an apparatus for producing electronic video signals representative of color images of a scene comprising" a sensor having a color filter thereover (Figure 5A, Item 18 CCD and Item 19 COLOR FILTER); a lens system that focuses light from the image onto the color filter and sensor (Figure 5A, Item 13); and means for producing electronic video signals from the output of the sensor (Figure 1, VIDEO OUT; c. 2, ll. 8-40; Figure 9; Figure 10); said sensor comprising a sensor array having alternate lines offset by half a pixel spacing, and diagonally coupled on successive lines, and the color filter having repeating R, G and B patterns offset on successive lines so that R pixels are arranged diagonally, G pixels are arranged diagonally and B pixels are arranged diagonally (Figure 4; c. 3, ll. 7-15). As claimed figure 4 can be read as being "diagonally coupled on successive lines" since the pixels are offset in successive lines and in contact with each other. For example, the first "R" pixel of the first line is offset from the first "B" pixel of the second line, therefore the two pixels can be said to be "diagonally coupled" as claimed.

[claim 17]

Regarding claim 17, Kawahara discloses a lens system which is a "motion picture film type of lens system" (Figure 5A, Item 13). The examiner notes that the lens of Kawahara is a "phototaking lens having an iris" (c. 3, ll. 23-24) which could be used in

a motion picture film type of camera and is therefore a "motion picture film camera type of lens system" as claimed. The examiner notes that as written claim 13 does not require any specific lens or lens system, instead the claim merely requires a "type" of lens which could be used in a motion picture camera. For example, focusing lenses and zoom lenses can be considered to be "types" of lenses which are used in motion picture cameras and which meet the limitations of the claim as written.

Claim Rejections - 35 USC § 103

6. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

7. Claims 12, 14, 16 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawahara et al. (US 4,758,883) in view of Morisawa et al. (US 4,611,243).

[claim 12]

Regarding claim 12, Kawahara discloses all limitations except for a low pass prefilter interposed before the color filter. Morisawa teaches placing optical low-pass prefilters before image sensors in order to create moiré-free images (c. 3, ll. 20-37). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include an optical low pass filter as taught by Morisawa to create moiré-free images.

[claim 14]

Regarding claim 14, see claim 13.

[claim 16]

Regarding claim 16, Kawahara discloses all limitations except for a low pass prefilter interposed before the color filter. Morisawa teaches placing optical low-pass prefilters before image sensors in order to create moiré-free images (c. 3, ll. 20-37). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include an optical low pass filter as taught by Morisawa to create moiré-free images.

[claim 18]

Regarding claim 18, see claim 17.

8. Claims 19 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawahara et al. (US 4,758,883) in view of Uchiyama et al. (US 5,194,944).

[claim 19]

Regarding claim 19, Kawahara discloses all limitations except for first, second and third registers coupled to R, G and B pixels respectively. Uchiyama discloses that R, G and B pixels can be output to respective registers so that the image sensor is able to output simultaneously (Figures 3 and 4; c. 5, ll. 18-62). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include individual registers for the R, G and B color channels in order to output signals for R, G and B simultaneously as taught by Uchiyama.

[claim 21]

Regarding claim 21, see claim 19.

9. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kawahara et al. (US 4,758,883) in view of Morisawa et al. (US 4,611,243) in view of Uchiyama et al. (US 5,194,944).

[claim 20]

Regarding claim 20, Kawahara in view of Morisawa discloses all limitations except for first, second and third registers coupled to R, G and B pixels respectively. Uchiyama discloses that R, G and B pixels can be output to respective registers so that the image sensor is able to output simultaneously (Figures 3 and 4; c. 5, ll. 18-62). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include individual registers for the R, G and B color channels in order to output signals for R, G and B simultaneously as taught by Uchiyama.

Conclusion

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Timothy J. Henn whose telephone number is (571) 272-7310. The examiner can normally be reached on M-F 9:00 AM - 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wendy R. Garber can be reached on (571) 272-7308. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TJH
5/23/2005

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SUPERVISORY PATENT EXAMINER
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